

IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently Amended) A centrifuge comprising:

a rotatingly mounted bowl (1) and, concentrically rotatingly mounted therein, a scroll (5) capable of rotating at a differential speed relative to the bowl, a member of the group consisting of the bowl (1) and the scroll (5) being powered by a central exterior (stationary located) motor assembly (4; 22),

a hydraulic motor, comprising a motor casing and a motor rotor (12; 21) [[-]] provided as ~~the~~ a gearbox for controllably defining said differential speed, [[-]] being interposed ~~therebetween~~ between the bowl and scroll with its the motor casing (12b), on the one hand functionally connected to one of the bowl and the scroll and its the motor rotor (12c), on the other functionally connected to the other of the bowl and the scroll,

a hydraulic feed pump for feeding the feed of the hydraulic motor, (12, 21) being provided by a hydraulic pump (feed pump 11; 23; 41)

~~characterized in that~~

~~assigned to~~ wherein said hydraulic motor (12; 21) is engaged corotatingly is with said hydraulic feed pump (11; 23; 41), and said hydraulic feed pump includes a rotor shaft whose rotor (13) is supported in a non-corotating manner exterior to said at least one rotating centrifuge parts (supporting lever 15) part, and in that

adjusting members for changing the change in the flow supplied by said feed pump (11, 23, 41) to said hydraulic motor (12, 21) is brought about by , the adjusting members (42; 43; 29, 30) actuated hydraulically actuatable and arranged to corotate with said drive hydraulic motor.

2. (Currently Amended) The centrifuge as set forth in claim 1, wherein the feed pump (41) has a constant displacement volume, ~~characterized in that~~ wherein said adjusting member is a flow control valve (42, 43) which returns the feed flow not required by said hydraulic motor (12, 21) to ~~the~~ a non-pressurized area of ~~said~~ a flow circuit connecting the hydraulic motor and the hydraulic pump, said flow ~~controller~~ control valve setting either the flow branched off from the working circuit ~~(2-way flow control)~~ via 2-way flow control or directly regulating the flow delivered to said hydraulic motor ~~(12, 21) (3-way flow control)~~ via 3-way flow control.

3. (Currently Amended) The centrifuge as set forth in claim 2, ~~characterized in that~~ wherein a control aperture (40) of said flow control valve ~~controller~~ (42, 43) through which said regulated flow flows can be located on both the rotating system and on the non-rotating system.

4. (Currently Amended) The centrifuge as set forth in claim 2, ~~characterized in that~~ wherein a control aperture (37) through which said regulated flow flows is controlled by application of the return pressure ~~(valve 46)~~ or activated by a proportional magnet or solenoid (36).

5. (Currently Amended) The centrifuge as set forth in claim 1, wherein the feed pump (23) has a variable displacement volume, ~~characterized in that~~ wherein

said adjusting member is a hydraulically actuated cylinder (29) which is activated via a valve (servo member 31) servo member.

6. (Currently Amended) The centrifuge as set forth in claim 5, ~~characterized in that~~ wherein said servo member (31) is activated directly via a proportional magnet or solenoid (36).

7. (Currently Amended) The centrifuge as set forth in claim 5, ~~characterized in that~~ wherein said servo member (31) is activated directly or indirectly via the charging pressure of a charging pump (26) (valve 28).

8. (Currently Amended) The centrifuge as set forth in claim 1, ~~characterized in that~~ wherein said elements (24, 25) serving to condition said drive fluid are located exterior to said rotating system.

9. (Currently Amended) The centrifuge as set forth in claim 5, ~~characterized in that~~ wherein said charging pump (26) like said feed pump is arranged corotating.

10. (New) The centrifuge as set forth in claim 1, wherein the feed pump has a variable displacement volume, wherein said adjusting member is a hydraulically actuated cylinder which is activated via a valve.

11. (New) The centrifuge as set forth in claim 1, wherein the motor casing is functionally connected to the bowl and the motor rotor is functionally connected to the scroll, wherein the motor powers the bowl.